In The Drawings

Figures 1L, 1M, 1N, 2D, 2E and 3 have been amended and a redline copy of the drawing change is hereby submitted for the Examiner's approval.

In The Specification

Paragraph 0045 has been amended as follows:

0045 In the next step of the process, shown in Figure 1H, a metal seed layer 46 is deposited on top of the photoresist layer 38,44 and patterned to define an ejection orifice 48 in the metal seed layer. The metal seed layer may be deposited of a Cr/Ni alloy by sputtering or evaporation and used as a seed layer for a subsequent electroplating process. A fifth photomask is used in a photolithography process to define the size and location of the ejection orifice 48. The ejection orifice 48 is formed by a wet etching technique followed by a process for removing the photoresist layer used in the lithography process.

Paragraph 0046 has been amended as follows:

0046 The present invention novel method is followed, as shown in Figure 1I, by a second thick photoresist layer 50 deposition process. The deposition can be carried out by a spin-coating technique and then the photoresist layer 50 is patterned for the ink passageway 72. The process is then followed by a photoresist developing process, during which the photoresist layer 50 is removed except at the ink passageway 72, which stays on top of the ejection orifice 48. This is shown in Figure 1J.

A' (cont'd)

Paragraph 0047 has been amended as follows:

0047 An orifice plate 54 is then formed by a nickel electroplating process, as shown in Figure 1K. The residual, second thick photoresist layer 50 in the ink passageway 72 is then removed to form the injection passage in fluid communication with the ink chamber 40, as shown in Figure 1L. The photoresist removal process is performed by a wet etching technique.

Paragraph 0049 has been amended as follows:

0049 In the final step of the process, as shown in Figure 1N, the first thick photoresist layer 38 is removed by a developing solution to vacate the ink chamber 40 in fluid communication with the manifold 20 and the ink passageway 72. The present invention novel thermal bubble inkjet head that is equipped with symmetrical heaters is thus completed.

Paragraph 0050 has been amended as follows:

0050 The operation of the present invention thermal bubble inkjet head having an off-shooter arrangement is shown in Figures 2A~2E. At the beginning of the process, the funnel-shaped manifold 20 and the ink chamber 40 are filled with an ink material. The ring-shaped heater electrode 28 is then heated to produce a ring-shaped bubble 70. As a result, a small ink column 74 is pushed out of the ink passageway 72 through the orifice 48. The bubble 70 enlarges, as shown in Figures 2B and 2C, to further push the ink column 74 out of the ink passageway

72, as the heater electrode 28 continuously heats the ink contained in the ink chamber 40.

Paragraph 0051 has been amended as follows:

A2 (cont'd)

0051 Finally, as shown in Figures 2D and 2E, the ring-shaped bubble 70 forms a circular bubble 76 and thus, cutting off the ink droplet 74 completely from the ink contained in the ink chamber 40. As a result, the ink droplet 74 separates from the inkjet passageway 72 and forms an ink droplet toward the target. After the inkjet droplet 74 departs from the inkjet head 10, the bubble 76 collapses forming a void (not shown).